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**A NEW SPECIES OF CARYCHIUM FROM VANCOUVER  
ISLAND, BRITISH COLUMBIA**

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Union Bay, Vancouver Island, British Columbia, is a coaling station where ships often call prior to a cruise to the northward. I happened to visit the place in this manner in April, 1916, and took advantage of the opportunity to collect some land snails in the heavy timber back of the settlement. Among other interesting species there was found a *Carychium* which does not appear to have been described.

***Carychium magnificum* Hanna, new species**

Shell white or translucent; whorls five, gradually increasing in size to the last making the shape more decidedly conical than in any other North American species. Sutures deep; growth lines weak; delicate revolving striæ in the type and most specimens. Aperture with the peristome reflected abruptly but without heavy callus on the inside; shorter and broader in proportion to altitude of shell than in *exiguum*. Parietal tooth near the columellar wall and forming outer termination of a high-revolving axial plait (shown in the paratype, which was broken open for the purpose). A low basal protuberance which also continues within the shell as an axial plait but it is lower than the preceeding. The axis is dissolved out of the upper three whorls. Altitude, 2.30 mm.; diameter, 1.13 mm. Bulk of shell fully twice as great as that of *C. exile canadense* which was found under the same log.

*Type:* No. 689 and paratype No. 690, Mus. Cal. Acad. Sci. Fifty-nine paratypes No. 18,567, systematic series, Mus. Cal. Acad. Sci.

*Type-locality*: Union Bay, Vancouver Island, British Columbia.

This species is undoubtedly closest related to *C. occidentalis* Pilsbry,<sup>1</sup> which was described from Portland, Oregon, and has been recorded from Seattle, Washington.<sup>2</sup> The shape of the two species is about the same and both are without thickening on the inside of the peristome. Measurements of *C. occidentalis* have not been published but the figures cited are upon a plate where other known North American forms appear. Presumably, all were drawn to the same scale. If so, there is no great difference between *occidentalis* and *exiguum* in size. This appears the more reasonable since no mention of a larger size is contained in the original description of the former. It was distinguished from

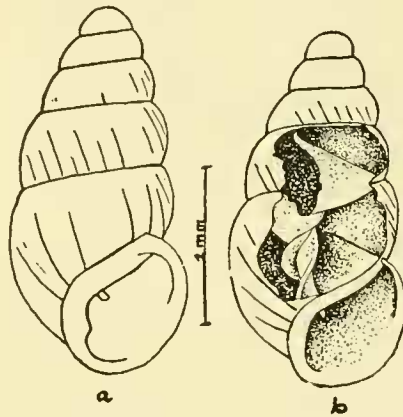


Fig. 1. *Carychium magnificentum* Hanna, new species; a, type: No. 689; b, paratype: No. 690; Mus. Cal. Acad. Sci.

*exiguum* by a more distinctly conical shape, larger and more oblique aperture, and outer lip not thickened. The large size of *C. magnificentum* is its most distinguishing feature but the spiral striae have not been seen in other species. *C. exile canadense*, which was found with it, is much narrower and a little shorter. It is larger than any previously known species. The two revolving axial plaits have been found in all species which were examined, but in *C. magnificentum* they are higher than in the others. The dissolving

<sup>1</sup>Nautilus, IV, 109, 1891. Proc. Acad. Nat. Sci. Phila. 1891, p. 318, pl. XIV, figs. 4, 5, 6. Nautilus, VIII, p. 63, figs. 4, 5, 6, 1894.

<sup>2</sup>Randolph, Nautilus, Vol. IX, p. 102, 1896.

away of the axis in the upper three whorls seems to be a generic character.

The differences in size are best shown in the form of a table as follows:

	Altitude	Diameter	
	mm.	mm.	
<i>Carychium magnificum</i> . . . . .	2.30	1.13	Type
<i>Carychium magnificum</i> . . . . .	2.50	1.4	Maximum
<i>Carychium exiguum</i> . . . . .	1.75	.75	Average*
<i>Carychium exiguum</i> . . . . .	2.15	.85	Maximum*
<i>Carychium exile</i> . . . . .	1.75	.6	Large average*
<i>Carychium exile canadense</i> . . . . .	2.1	.75	Types*
<i>Carychium stygium</i> . . . . .	2.00	.85	Cotype*
<i>Carychium nannodes</i> . . . . .	1.4	.6	Type**
<i>Carychium occidentalis</i> . . . . .	1.75?	.75?	By inference.

\*Clapp, Nautilus, Vol. XIX, p. 138-140, pl. VIII, figs. 1-10, 1906.

\*\*Clapp, Nautilus, Vol. XIX, p. 91, pl. III, figs. 7, 8, 9, 1905. The subspecies, *C. exile jamaicensis* Pilsbry and *C. exiguum mexicanum* Pilsbry, are approximately the size of the species to which they were attached, if one may judge the figures correctly; measurements have not been published. The references cited for *C. occidentalis* apply to these as well.